

Puget Sound Partnership

our sound, our community, our chance

Biennial Science Work Plan Agenda Item #6

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Proposed Action: Briefing about the Science Panel's development of a Biennial Science Work Plan.

Summary: The Partnership's Science Panel has begun drafting a biennial science work plan to identify specific work actions to be done over the coming two years to address science needs in Puget Sound. The Panel is currently working with staff to refine and expand the initial draft developed at work sessions on August 6 and 7.

Background: RCW 90.71.290 requires Science Panel to develop a biennial science work plan. The plan is required to identify specific studies, modeling, research and monitoring actions required to support and track Puget Sound protection and recovery. It is also required to include recommendations for improvements to on-going scientific work.

RCW 90.71.290 outlines a series of additional items to be included in the biennial science work plan, including a compilation of recommendations from scientific and technical reports relating to Puget Sound, a description of Puget Sound science-related activities, a description of whether ongoing work address the recommendations and identification of actions necessary to fill gaps. Staff provided drafts of these materials to the Panel in advance of their August 6 meeting.

Major Scientific Needs for 2009-2011

The Science Panel has identified two major focus areas for 2009-11:

- Predict how Puget Sound could change with population growth, climate change, and other human and natural drivers
- Assess efficacy of management actions in context of the Puget Sound ecosystem

Specific topics from these focus areas that will be addressed first include:

- adaptive management of restoration of larger river deltas
- watershed-scale study of the effects of changes in land use patterns or stormwater management strategies on pollutant loads in stormwater and biological impacts

- pelagic and/or nearshore food webs with a focus on forage fish and how forage fish populations exert effect up and down food chains

The draft plan suggests that the Partnership would issue requests for proposals to support investigations on these topics.

Necessary Capacities

Monitoring

Integrated, sustained monitoring of ambient conditions; drivers and pressures; effectiveness of programs and projects; and emerging threats and issues. The draft plan suggests work to include:

- continue existing Puget Sound region monitoring
- augment performance management system with more information about ecosystem conditions and to support ecosystem modeling
- actions in Action Agenda to provide effectiveness information
- develop comprehensive monitoring program
- Puget Sound monitoring consortium

Coordinated Data Management

Data management and communication system where the Partnership is the center of a distributed system of data exchange nodes with the ability to link into dispersed data systems to access data we need. The draft plan suggests work to include:

- complete an assessment of Partnership's business needs in data: flows of information from monitoring on indicators for State of Sound reporting
- develop exchange capabilities for key information flow needs
- work to build regional data management capabilities

Assessment of Existing Data

The draft plan suggests work to include:

- prioritize historical data records
- create capacity to study existing data
- study existing data to understand the ecosystem and ecosystem health

Conceptual Models

The draft plan suggests work to include:

- Convene small groups of experts knowledgeable about Puget Sound
- Identify gaps and needs related to modeling.
- Use an iterative process of getting input and revisiting the models.
- Translate for education and outreach uses
- Use conceptual models to inform adaptive management (synthesis of findings)

Ecosystem Process Research

The Partnership needs capacity to: (1) articulate research needs (what things need to be studied? what are important areas where no work is being done?); (2) select and fund studies; (3) conduct peer review. The draft plan suggests work to identify research priorities and issue a request for proposals.

Support Activities

The draft plan also suggests the need for work to:

- assess existing investigations and scientific capacity, using small, focused groups of knowledgeable people.
- develop and maintain an integrated modeling framework for the Puget Sound system
- advocate for science and science training
- be a resource to the Partnership and a liaison to the partnership staff when science input is needed
- provide advice and content to educational programs (K-12, higher education, etc.)
- translate science into outreach messages

Next Steps:

- Provide feedback from the Ecosystem Coordination Board to Science Panel members and staff for their consideration in further developing the draft biennial science work plan
- Science Panel and staff develop details of work activities: specific tasks, staffing needs, funding, timeframes, opportunities for stakeholder and Partnership engagement, review process
- Science Panel submit biennial science work plan to Leadership Council for adoption as part of draft Action Agenda materials in October 2008